

REMARKS

The Examiner's Office Action of April 13, 2004, responding to an Amendment filed on March 3, 2004 with a Request for Continued Examination, has been received and its contents carefully considered.

Claims 21-27 and 42-52 are pending in this application. Claims 42-43 and 51-52 are canceled without prejudice or waiver, and claims 24, 26, 47 and 49 are amended herein.

In the current Office Action, the Examiner again rejects claims 21-27 and 42-52 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. That is, the Examiner asserts that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Specifically, regarding claims 21, 42-44 and 51-52, the Examiner notes that the claims recite: "...the back (or second) surface of the wafer exposed to convective air in the burn in apparatus..." The Examiner asserts that the specification does not provide a clear, concise and full description of the above claim limitation. While acknowledging that on page 23, lines 25-30, the application does describe ventilating through holes in the holding plate to help circulate air to the exposed wafer, the Examiner argues that it does not described that the air is being exposed to the back surface of the wafer as claimed.

Further, regarding claims 24, 26, 47 and 49, the Examiner notes that the claims recite: "...disposed over the back (or second) surface of the wafer a holding plate having a through hole..." The Examiner asserts that the specification does not provide a clear, concise and full description of the above claim limitation, either. While acknowledging that on page 23, lines 25-30, the application does describe ventilating through holes in the holding plate to help circulate air to the exposed wafer, the Examiner argues that it does not described that the holding plate as being disposed over the back surface of the wafer as claimed.

The Examiner's §112, first paragraph, rejection is respectfully traversed. With regard to the "written description" requirement, the inquiry to be made pertains to whether the disclosure (specification, claims and drawings) as originally filed reasonably conveys to

one of ordinary skill in the art that the inventor had possession at that time of that which he now claims. See In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

As the Examiner acknowledges, the text at page 23, lines 25-30, of the application, with reference to Figure 13, discloses that "a plurality of through holes 309b are formed at the holding plate 309," which "makes it possible to expose the wafer to be measured 401 to the air that circulates through convection when, for instance, burn-in is implemented on the wafer to be measured 401." The Examiner does not appear to be denying the specification's clear indication that the purpose of the through holes in the holding plate is to expose the wafer to air that circulates through convection. Rather, the Examiner's question, as best understood, is whether the specification indicates specifically that the holding plate is disposed over the back surface of the wafer, and that air is being exposed to the back surface of the wafer (emphasis added).

The applicant believes that this question can be answered in the affirmative. The specification discloses in Figures 17, and in detail in Figure 18, and discusses on page 24, lines 17-31, that when the wafer to be measured 401 is mounted into the burn-in apparatus, it is mounted with the plurality of electrodes 411b, which the claims define as being on the front (or first) surface of the wafer, facing the film 305 and circuit board 303, and with the opposite surface, which the claims define as the back (or second) surface of the wafer, facing the holding plate 309, which has the plurality of through holes 309b. Thus, when the specification is considered as a whole, it is clear that the limitations "...with the back (or second) surface of the wafer exposed to convective air in the burn in apparatus..." and "...disposed over the back (or second) surface of the wafer a holding plate having a through hole..." are, in fact, disclosed in a manner so as to convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

In the present Action (see page 7), the Examiner takes exception to the foregoing argument. The Examiner claims that in reviewing page 24, lines 17-31 and figures 17-18, it is impossible for the back surface of the wafer to be exposed to air as claimed. The Examiner specifically quotes page 24, lines 21-23, which state: "The pressure from the holding plate 309 is distributed evenly and correctly to the wafer to be measured 401 by the buffer member 313 provided at the holding plate 309." The Examiner argues that the

buffer member 313, which is not disclosed in Figure 13 or on page 23, lines 25-30, is covered by the holding plate 309, which in turn covers the ventilating through holes 309, shown in Figure 13. The Examiner further argues that with the ventilating through holes 309 covered by the buffer, it is not possible for the back surface of the wafer to be exposed to convective air as claimed. From the Examiner's perspective, the only way convective air can be exposed to the wafer, based on figures 17-18, is through film 305, which is connected to the front surface of the wafer. Thus, the Examiner concludes the reference on page 23, lines 25-27, to a plurality through holes formed in the holding plate to expose the wafer to air circulating by convection, does not disclosed that it refers to either the front or back of the wafer.

The applicant respectfully disagrees with the Examiner's rebuttal argument. The rejected claim limitations go to a holding plate having a through hole disposed over the back of the wafer, with the back surface of the wafer being exposed to convective air through the through hole. In considering Figures 17-18, there appears to be no way in which air admitted through the through holes 309b in retaining plate 309 could impinge on the front surface of wafer 401, which faces toward contact film 305 and circuit board 303.

In applicant's view, the Examiner's rebuttal argument is not really directed to the "written description" requirement of §112, first paragraph, but rather to the "enablement" requirement, which is separate and distinct. Compliance with the enablement requirement of §112 requires that the written description must be sufficiently full, clear, concise and exact to enable one of ordinary skill in the art to practice the claimed invention without resort to undue experimentation. In re Strahilevitz, 668 F.2d 1229, 212 USPQ 561 (CCPA 1982). In other words, the Examiner appears to be asserting that Figures 17-18 fail to show specifically how the back surface of the wafer would be exposed to convective air through the through hole in the holding plate.

Figures 17-18 are sectional views illustrating the semiconductor device test apparatus of Figure 13 with the wafer to be measured, illustrated in Figure 14, fitted. A person of ordinary skill in the art would understand that such a sectional view can be drawn in such a way as to not include the through holes in the holding plate, or similar details of other elements, such as the buffer member. Hence, there is a significant question as to whether any conclusions at all can be legitimately drawn from Figures 17-18 about the

blocking effect of the buffer member. The applicant submits that even in the absence of such details regarding the buffer member, a person of ordinary skill in the art, knowing the purpose of the through holes in the retaining plate, to employ, would understand that the buffer member would have to have corresponding holes to allow the back of the wafer to be exposed to convective air admitted through the retaining plate. This would not involve undue experimentation, and thus, it is submitted that the specification also meets the “enablement” requirement with respect to the limitations in question.

For at least the foregoing reasons, the Examiner is respectfully requested to reconsider and withdraw the §112, first paragraph, rejection, and give appropriate patentable weight to the affected limitations in considering the pending claims.

In the present Action, the Examiner rejects claims 21-27 and 44-50 under 35 USC 103(a) as being anticipated by the newly cited Wood et al. reference (U.S. Patent No. 5,663,654). The rejection is respectfully traversed

The Examiner points to Wood et al. as disclosing the elements of the rejected claims. However, it is respectfully submitted that Wood et al. fails to teach or suggest the limitations discussed above, namely, “the back (second) surface of the wafer exposed to convective air in the burn-in apparatus,” as recited in claims 21 and 44. Moreover, the Examiner fails to include in his rejection claims 42-43 and 51-52, which recite the distinguishing feature “providing the convective air over the back (second) surface of the semiconductor wafer through the through hole.” Figure 2B, 3 and 4 of Wood et al. fail to disclose any through holes in plate 12 capable of exposing the wafer 41 to convective air. The assembled fixture in Wood et al. is apparently intended to be inserted into a burn-in oven that regulates the temperature of the wafer during test (see column 6, lines 30-31). Hence, it is respectfully submitted that the claims patentably distinguish over the applied prior art reference.

Without prejudice to applicant’s traversal of the §102 rejection, claims 24, 26, 47 and 49 are amended herein to further distinguish over the applied art by incorporating the limitations of canceled claims 42-43 and 51-52, respectively.

The Examiner’s various rejections having been fully addressed, it is submitted that the application, as amended, is in condition for allowance. Entry of this Amendment and allowance of claims 21-27 and 44-50 is respectfully requested.

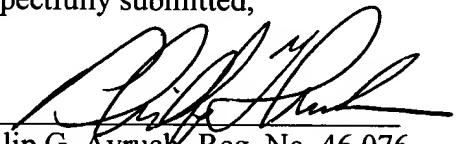
The Examiner's various rejections having been fully addressed, it is submitted that the application, as amended, is in condition for allowance. Entry of this Amendment and allowance of claims 21-27 and 44-50 is respectfully requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Respectfully submitted,

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Date


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